

REMARKS

Claims 1-38 were pending in the application. In the foregoing amendments, Claims 1-6, 8-11, 14, 17-18, 21-22, 25, 31-32, 34-35, and 37 have been amended. Claims 12-13, 23-24, 27-30, 33, 36, and 38 have been canceled without prejudice and disclaimer to the subject matters disclosed therein. New Claims 39-45 have been added. Support for these amendments can be found in the specification and claims of the application as filed. No new matter has been added by these amendments.

Applicants respectfully request entry of the foregoing amendments and reconsideration of the application in light of the amendments above and the remarks below.

Specification

The Office Action stated that the title of the invention is not descriptive. A new title was required that is clearly indicative of the invention to which the claims are directed.

While Applicants tried to accommodate the Examiner's request for a more specific title, Applicants submit that the title of the application as filed reflects the breath of the invention to which the claims are directed. Applicants respectfully request that the Examiner reconsider the original title.

Claim Rejections under 35 U.S.C. § 112

The Office Action rejected Claims 17, 18, 29, and 30 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In the foregoing amendments, claims 17 and 18 have been amended (and claim 29-30 cancelled), thereby obviating these rejections.

Claim Rejection under 35 U.S.C. § 103(a)

The Office Action rejected Claims 1, 2, 31, and 35-37 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180) in view of Kanterakis (U.S. Publication No. 2002/0136272A1).

The Office Action rejected Claims 3 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180) and Kanterakis (U.S. Publication No. 2002/0136272A1) as applied to Claim 1 above, and further in view of Halford (U.S. Patent No. 6,614,836).

The Office Action rejected Claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180) and Kanterakis (U.S. Publication No. 2002/0136272A1) as applied to Claim 1 above, and further in view of well established teaching in art.

The Office Action rejected Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180) and Kanterakis (U.S. Publication No. 2002/0136272A1), as applied to Claims 1 and 2 above, and further in view of Komaili (U.S. Publication No. 2003/0003446A1) and well established teaching in art.

The Office Action rejected Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180) and Kanterakis (U.S. Publication No. 2002/0136272A1), as applied to Claim 1 above, and further in view of Cho (U.S. Patent No. 6,049,633).

The Office Action rejected Claims 6-8 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180) and Kanterakis (U.S. Publication No. 2002/0136272A1), as applied to Claim 1 above, and further in view of Komaili (U.S. Publication No. 2003/0003446A1).

The Office Action rejected Claims 11, 16, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914) in view of Seshadri (U.S. Patent No. 5,289,501).

The Office Action rejected Claims 12-14 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914) and Seshadri (U.S. Patent No. 5,289,501) as applied to Claim 11 above, and further in view of Kanterakis (U.S. Publication No. 2002/0136272A1).

The Office Action rejected Claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914), Seshadri (U.S. Patent No. 5,289,501), and Kanterakis (U.S. Publication No. 2002/0136272A1), as applied to Claim 12 above, and further in view of Salvarani (U.S. Patent No. 6,760,597).

The Office Action rejected Claims 17, 18, 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914), Seshadri (U.S. Patent No. 5,289,501),

and Kanterakis (U.S. Publication No. 2002/0136272A1), as applied to Claim 16 above, and further in view of well established teaching in art.

The Office Action rejected Claims 19, 25, and 26 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914), Seshadri (U.S. Patent No. 5,289,501), as applied to Claim 11 above, and further in view of Halford (U.S. Patent No. '836).

The Office Action rejected Claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914), Seshadri (U.S. Patent No. 5,289,501), as applied to Claim 11 above, and further in view of Lundh (U.S. Patent No. 6,718,180).

The Office Action rejected Claims 23, 32, and 34 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914) in view of Kanterakis (U.S. Publication No. 2002/0136272A1).

The Office Action rejected Claims 24, 27, and 28 under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914) and Kanterakis (U.S. Publication No. 2002/0136272A1) as applied to Claim 23 above, and further in view of Seshadri (U.S. Patent No. 5,289,501).

The Office Action rejected Claim 38 under 35 U.S.C. § 103(a) as being unpatentable over Lundh (U.S. Patent No. 6,718,180), Kanterakis (U.S. Publication No. 2002/0136272A1), as applied to Claim 37 above, and further in view of Niemela (U.S. Patent No. 6,452,914).

Claims 1, 31, 35, 37 and Their Dependent Claims

Independent claim 1, as amended, recites a method including "forming the message indicative of a state of the communication link, the message comprising a codeword, a minimum distance of the codeword being associated with the state of the communication link." Applicants submit that the amended claim 1 is patentable over the cited references, alone or in combination, for at least the reasons discussed below.

Lundh (U.S. Pat. No. 6,718,180) discloses methods and systems for enabling balanced base station transmitter output power levels with respect to a mobile station in a macro-diversity communication by adjusting a base station transmitter output power level responsive to power control commands send by the mobile station and the (current) transmitter output power level of the base station (see FIG. 4; col. 7, lines 14-60).

Kanterakis (U.S. Publication No. US2002/0136272A1) discloses a CDMA system employing spread-spectrum modulation, having a base station and a plurality of remote stations. A remote station transmits an access-burst signal, including a plurality of preamble signals, power-control signals, and pilot signals, respectively, transmitted in time and at increasing power levels. The base station receives the access-burst signal and transmits an acknowledgement signal. Upon receiving the acknowledgement signal, the remote station then transmits a spread-spectrum signal having data.

Neither of these references (or other cited references), either alone or in combination, teaches or suggests "forming the message indicative of a state of the communication link; assigning a codeword to the message, the codeword having a minimum distance based at least in part on the state of the communication link," as recited in claim 1. For at least these reasons, independent claim 1 is patentable over the cited references. Applicants respectfully request that the rejection of claim 1 be withdrawn.

Independent claims 31, 35, 37 each recite an apparatus (e.g., an access terminal or a communication unit), including "a data processor configured to form a message indicative of a state of the communication link and assign a codeword to the message, the codeword having a minimum distance based at least in part on the state of the communication link" (or means for performing such). Thus, claims 31, 35, 37 are allowable, for at least the reasons given above with respect to claim 1. Applicants respectfully request that the rejections of these claims be withdrawn.

Claims 2-10 and 39-44 each depend from one of independent claims 1 and 32, and therefore are allowable as well. Applicants respectfully request that the rejections of claims 2-10 be withdrawn.

Claims 11, 32, 45 and Their Dependent Claims

In the foregoing amendments, independent claim 11 has been amended to include the limitations of claim 13 (and intervening claim 12), which was rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemela (U.S. Patent No. 6,452,914) and Seshadri (U.S. Patent No. 5,289,501) as applied to claim 11, and further in view of Kanterakis (U.S. Publication No.

2002/0136272A1). Applicants submit that claim 13 - now amended claim 11 - is patentable over the cited references, for at least the reasons discussed as follows.

Niemela discloses a signaling method in a wireless telecommunication system, where the signals between a base station and a terminal comprise bursts generated from symbols. According to one embodiment, the stealing symbols of a normal burst are used for signaling. The desired signaling messages are then coded into code words of a particular length and are added to the stealing symbols of a normal burst. The tables in FIGS. 3a-3b and FIG. 4 show an example of the signaling messages needed in the power control signaling (see col. 4, lines 49-56).

Seshadri discloses using a multi-level coding of information to provide unequal error protection for different classes of data, where one code may have a minimum Hamming distance greater than that of another code.

As discussed above, Kanterakis discloses a CDMA system employing spread-spectrum modulation, having a base station and a plurality of remote stations. A remote station transmits an access-burst signal, including a plurality of preamble signals, power-control signals, and pilot signals, respectively, transmitted in time and at increasing power levels. The base station receives the access-burst signal and transmits an acknowledgement signal. Upon receiving the acknowledgement signal, the remote station then transmits a spread-spectrum signal having data.

Neither of these references (or other cited reference), either alone or in combination, teaches or suggests "determining a transmit power level for the identified codeword, based at least in part on a distance of the identified codeword to its nearest codeword in the alphabet," as recited in the amended claim 11. For at least these reasons, independent claim 11 is patentable over the cited references. Applicants respectfully request that the rejection be withdrawn.

Independent claims 32, 45 each recite an apparatus (e.g., an access terminal or a communication unit), including "a data processor.....further configured to determine a transmit power level for the identified codeword, based at least in part on a distance of the identified codeword to its nearest codeword in the alphabet" (or means for performing such). Thus, claims 32, 45 are allowable, for at least the reasons given above with respect to claim 11. Applicants respectfully request that the rejection of claim 32 be withdrawn.

Claims 14-22, 25-26 and 34 depend from one of independent claims 11, 32, 45, and therefore are allowable as well. Applicants respectfully request that the rejections of these claims be withdrawn.

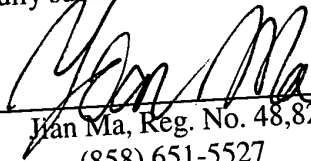
REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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